

## General

### Title

Physician to population ratio: total number of specialist physicians per 100,000 population.

### Source(s)

Canadian Institute for Health Information (CIHI). Health indicators 2010: definitions, data sources and rationale. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2010 May. 47 p.

## Measure Domain

### Primary Measure Domain

#### Structure

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the total number of specialist physicians (Medical, Surgical and Laboratory Specialists) on December 31st of the reference year per 100,000 population.

See the related National Quality Measures Clearinghouse (NQMC) summary of the Canadian Institute for Health Information (CIHI) measure, [Physician to population ratio: total number of general physicians and family physicians per 100,000 population](#).

### Rationale

Physician to population ratios are used to support health human resource planning. While physician density ratios are useful indicators of changes in physician numbers relative to the population, inference

from total numbers or ratios as to the adequacy of provider resources should not be made. Various factors influence whether the supply of physicians is appropriate, such as: distribution and location of physicians within a region or province; physician type (i.e., family medicine physicians vs. specialists); level of service provided (fulltime vs. part-time); physician age and gender; population's access to hospitals, health care facilities, technology and other types of health care providers; population needs (demographic characteristics and health problems); and society's perceptions and expectations.

In some regions, health facilities and personnel provide services to a larger community than the residents of the immediate region. In others, residents may seek care from physicians and specialists outside the region where they live. The ratio of physicians to population reflects the number of doctors in a region and has not been adjusted to take these movements into account. The extent to which this affects individual regions is likely to vary.

## Primary Clinical Component

Specialist physicians (Medical, Surgical and Laboratory Specialists); physician to population ratio

## Denominator Description

Total mid-year population

## Numerator Description

Total number of specialist physicians (Medical, Surgical and Laboratory Specialists) on December 31st of the reference year (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Evidence Supporting the Criterion of Quality

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

## Evidence Supporting Need for the Measure

### Need for the Measure

Use of this measure to increase capacity

Variation in capacity

### Evidence Supporting Need for the Measure

Canadian Institute for Health Information (CIHI). Health indicators 2010. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2010. 105 p.

## State of Use of the Measure

## State of Use

Current routine use

## Current Use

Federal health policymaking

Internal quality improvement

National reporting

## Application of Measure in its Current Use

### Care Setting

Unspecified

### Professionals Responsible for Health Care

Physicians

### Lowest Level of Health Care Delivery Addressed

Regional

### Target Population Age

Does not apply to this measure

### Target Population Gender

Does not apply to this measure

### Stratification by Vulnerable Populations

Does not apply to this measure

## Characteristics of the Primary Clinical Component

### Incidence/Prevalence

In Canada in 2008, the number of specialist physicians was 95 per 100,000 population.

### Evidence for Incidence/Prevalence

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## Association with Vulnerable Populations

Unspecified

## Burden of Illness

Unspecified

## Utilization

Unspecified

## Costs

Unspecified

## Institute of Medicine (IOM) Healthcare Quality Report Categories

### IOM Care Need

Not within an IOM Care Need

### IOM Domain

Not within an IOM Domain

## Data Collection for the Measure

### Case Finding

Does not apply to this measure

### Denominator Sampling Frame

Does not apply to this measure

### Denominator Inclusions/Exclusions

Inclusions

Total mid-year population

Exclusions

Unspecified

## Relationship of Denominator to Numerator

Does not apply to this measure

## Denominator (Index) Event

Does not apply to this measure

## Denominator Time Window

Does not apply to this measure

## Numerator Inclusions/Exclusions

### Inclusions

Total number of specialist physicians\* (Medical, Surgical and Laboratory Specialists) on December 31st of the reference year

\*The data includes physicians in clinical and non-clinical practice.

### Exclusions

The data excludes residents and physicians who are not licensed to provide clinical practice and have requested that their information be published in the Canadian Medical Dictionary.

Physicians are geo-coded to a region based on the postal code of correspondence submitted to the Scott's Medical Database. Records with invalid, missing, or partial postal codes are excluded from the regional totals.

## Measure Results Under Control of Health Care Professionals, Organizations and/or Policymakers

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

## Numerator Time Window

Encounter or point in time

## Data Source

Special or unique data

## Level of Determination of Quality

Does not apply to this measure

## Pre-existing Instrument Used

Unspecified

# Computation of the Measure

## Scoring

Rate

## Interpretation of Score

Better quality is associated with a higher score

## Allowance for Patient Factors

Does not apply to this measure

## Standard of Comparison

External comparison at a point in time

External comparison of time trends

Internal time comparison

# Evaluation of Measure Properties

## Extent of Measure Testing

Unspecified

# Identifying Information

## Original Title

Specialist physicians.

## Measure Collection Name

Health Indicators 2010

## Submitter

Canadian Institute for Health Information - Nonprofit Organization

## Developer

Canadian Institute for Health Information - Nonprofit Organization

## Funding Source(s)

Canadian Government

## Composition of the Group that Developed the Measure

*Employees:* Canadian Institute for Health Information (CIHI) Health Indicators

## Financial Disclosures/Other Potential Conflicts of Interest

None

## Adaptation

Measure was not adapted from another source.

## Release Date

2006 Jun

## Revision Date

2010 May

## Measure Status

This is the current release of the measure.

This measure updates a previous version: Canadian Institute for Health Information (CIHI). Health indicators 2008: definitions, data sources and rationale. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2008 May. 39 p.

## Source(s)

Canadian Institute for Health Information (CIHI). Health indicators 2010: definitions, data sources and rationale. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2010 May. 47 p.

## Measure Availability

The individual measure, "Specialist Physicians," is published in "Health Indicators 2010: Definitions, Data Sources and Rationale." This document is available in Portable Document Format (PDF) from the [Canadian Institute for Health Information \(CIHI\) Web site](#) .

For more information, contact CIHI at, 4110 Yonge Street, Suite 300, Toronto, Ontario, Canada, M2P 2B7; Phone: 416-481-2002; Fax: 416-481-2950; E-mail: [indicators@cihi.ca](mailto:indicators@cihi.ca); Web site: <http://www.cihi.ca/cihiweb/> .

## Companion Documents

The following is available:

Canadian Institute for Health Information (CIHI). Health indicators 2010. Ottawa (ON): Canadian Institute for Health Information (CIHI); 2010. 105 p. This document is available in Portable Document Format (PDF) from the [Canadian Institute for Health Information \(CIHI\) Web site](#)



## NQMC Status

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